

Cometary Chip 5

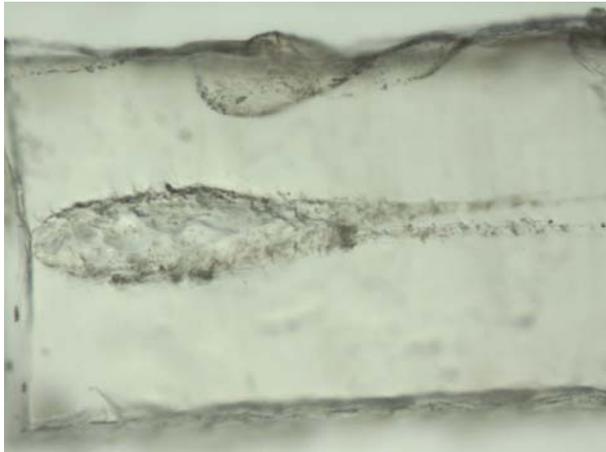
Track 5

Images

Aerogel Cell: Unknown

Track and Grains:

[Feature5_12x_7.jpg](#)



Track History: Chip 5 was found on the surface of the canister after opening and has not been tied to a specific cometary cell. Feature 5 was an ~1.5 mm long track cut out roughly as a quickstone using an ultrasonic steel macroblade at JSC and allocated to Ishii, LLNL as **FC5,1,5**. The entire track in aerogel was mounted on a stub for x-ray tomography in the LLNL FIB and Xradia instruments (for comparison). Afterwards, it was cut off the stub using an ultrasonic diamond microblade for a clean and very smooth surface. It was taken to the University of Washington where the entire track was compressed by Brownlee and divided into three portions (**FC5,1,5** and **FC5,2,5** and **FC5,3,5**). The terminal portion (**FC5,2,5** arbitrarily) was embedded in acrylic for microtomy. Microtomy was carried out at LLNL producing the following thin sections on 100 mesh Cu grids with carbon substrates: **FC5,2,5,0,1** through **FC5,2,5,0,15**. Grid images are available for all 15 grids. Analysis has focused on grids 11 through 15 containing material near and including a terminal grain of magnesium silicate and also (all) containing iron sulfide residue from a track in which the terminal particle was not located in the original fragment.

Track Characteristics:

Type A carrot with terminal grain visible.

Track Length: ~1.5 mm

Terminal Particle diameter: ~9 μm

Allocation History

Results

Grain 1

Ishii and Bradley (TEM/Tomo): Tomography of tracks. TEM images of Si-rich glass with embedded metal and sulfides. Analysis of one olivine:FO₉₆.

Track:

Data Files: No Data